

Amendments to the Drawings

The drawings in the present application stand objected to under 37 CFR § 1.84(u). Specifically, the Examiner has objected to the presence of parentheses in the numbering of figures 5A, 5B, 8A, 8B, 8C, 9A, 9B, 12A, 12B, 15A and 15B. In addition, indication of trademark status in the drawings has been required.

Accordingly, Applicant herewith submits a Submission of Replacement Drawings including replacement drawings (Figures 1-17). The replacement drawings include revised figures 5A, 5B, 8A, 8B, 8C, 9A, 9B, 12A, 12B, 15A and 15B showing figure labels that do not include parentheses. In addition, revised figures 2 and 3 are submitted showing appropriate indications of trademark status in relation to the terms CADDSTAR™, AUTOCAD® and INTERNET EXPLORER®.

Applicant respectfully notes that the terms Cadastre, Equal Area Grid, Atlas, State Plane Coordinate, and UTM are not presently listed in the USPTO TEAS system and are of unknown trademark status. Accordingly figure 9B has not been revised in this regard at this time.

Remarks

The Non-Final Office Action mailed January 27, 2005 has been received and carefully considered. Claim 12 has been amended to overcome the pending objection thereto. Claim 2 has been canceled, and pending rejections thereof are thus rendered moot. Claims 3 and 9 have been amended to further clarify the invention. New claims 28 – 30 have been added to more clearly define the invention. Accordingly, claims 1 and 3-30 are pending in the application.

The Office Action notes that the present invention claims priority to United States Provisional Patent Applications numbered 60/234,303 (*hereinafter* the '303 application) and 60/236,040 (*hereinafter* the '040 application). In so doing, the Office Action asserts that the Provisional Applications fail to provide enabling support under 35 USC § 112 for claims 10, 11, 13-17 and 21-36 of the application and so limits priority in relation to these claims to July 3, 2001, the filing date of the Non-Provisional Application.

Applicant respectfully disagrees. Support is believed to exist in the '303 and '040 applications for each of the now-pending claims. For example, claim 10 recites, "[a] method as defined in claim 1 wherein said planned deployment includes identification of one said instance with an owner."

Page 20 of the '303 application describes the system of the invention as "tracks end-to-end circuits, ownership, bandwidth, splicing priorities," (emphasis added). Page 22 of the same application describes "fiber ownership [is] tracked for each single fiber." Thus, it is believed that enabling support is found in the '303 application for claim 10, and

for the same or similar reasons the '303 and '040 applications are believed to fully support the balance of the now-pending claims.

Claims 1-2, 4-12, 18-20 and 27 stand rejected under 35 USC §101. In making the rejection, the Office Action relies on MPEP 2105 which states that "[i]f the broadest reasonable interpretation of the claimed invention as a whole encompasses a human being, rejection under 35 USC 101 must be made..." Applying this to claim 1, the Office Action concludes that because the terms "storing", "associating", "selecting", and "reading", could refer to human activity and MPEP 2105 requires that claim 1 be rejected.

Applicant respectfully traverses the rejection. The obvious meaning of MPEP 2105 is that an invention which includes a human being as an element of an apparatus is nonstatutory subject matter. Including human activities within process claims is believed to be entirely within the scope of statutory subject matter. Applicant therefor requests that the pending rejections of claims 1, 4-12, 18-20 and 27 be withdrawn or that statutory support be provided in relation to the proposition that mere human involvement in a process renders the process nonstatutory subject matter.

In relation to claims 18, 19 and 20, Applicant respectfully traverses the pending rejection. As noted by the Examiner, when functional descriptive material is recorded on some computer medium it becomes structurally and functionally related to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978).

Here, "software" is clearly functional descriptive material. For example, the catalog portion is "adapted to receive data defining a plurality of communication network components." The CCPA in In re Venezia held, "[p]aragraph two of claim 31 calls for 'a pair of sleeves...each sleeve of said pair adapted to be fitted over the insulating jacket....' Rather than being a mere direction of activities to take place in the future, this language imparts a structural limitation to the sleeve." 530 F.2d 956, 959; 189 U.S.P.Q. 149 (1976) (emphasis added). Accordingly claim 18 recites "computer programs which impart functionality when employed as a computer component," and which are recorded on some computer-readable medium and consequently are statutory subject matter. Accordingly, withdrawal of rejections of claims 1-2, 4-12, 18-20 and 27 under 35 USC §101 is in order, and is earnestly solicited.

The Examiner's Request for Information has been noted, and a corresponding Information Disclosure Statement is submitted herewith.

Also submitted herewith is a Submission of Replacement Drawings including drawings amended to include indications of trademark status, as discussed above in the section on Amendments to Drawings. Applicant respectfully notes that no known trademarks are believed to be found in the specification as previously presented. Accordingly no amendment of the specification is believed to be in order.

Claim 12 has been amended to include a period, providing grammatical correctness without narrowing the scope of the claim. The pending objection to claim 12 is thus overcome.

Claims 2, 3, 9 and 13-17 stand rejected under 35 USC §112, second paragraph.

Claim 2 has been canceled, and the rejection thereof is thus rendered moot. Claim 3 has been amended to include the limitation of “association of said attribute with said planned deployment.” The amendment of claim 3 is believed to clarify the original meaning of claim 3 without narrowing the scope thereof. In light of the presented amendment, the rejection of claim 3 under 35 USC §112, second paragraph, is overcome.

Claim 9 has been amended to further clarify the meaning of the claim. Applicant respectfully notes that no narrowing of claim scope results from the amendment presented. Consequently, the applicability of the Doctrine of Equivalents is believed to be unaffected by the present amendment, and no limitation of equivalents is intended to result.

Applicant respectfully traverses the rejection of claim 13. One of skill in the art would readily appreciate that the meaning of the term “substantially instantaneously identical” reflects the context of the system in which the term is used. Thus for example where data is mirrored on two servers, as a practical matter, the same data is available to the users of both servers on a timeframe that is otherwise compatible with system operation. As such, one of skill in the art would understand the subject claim limitation without the expression of an absolute time span. Accordingly, the rejection of claim 13, and of claims 14 – 17 which ultimately depend therefrom, under 35 USC §112 should be withdrawn.

Claims 1-9, 12 and 27 stand rejected under 35 USC 103(a) as being unpatentable over United States patent number 6,499,006 to Rappaport et al. (*hereinafter* Rappaport).

The present invention relates to a system and method for network infrastructure management in light of which claim 1 recites:

A method for deploying a fiber optic communication network comprising: storing an attribute of an optical communication component in a catalog database entry; associating said catalog database entry with a design profile; selecting said database entry from said design profile; reading said attribute from said database entry; and associating said attribute with a planned deployment of a physical instance of said component. (Emphasis added).

In contrast, the Rappaport reference relates to "[a] method for displaying the results of a predicted wireless communication system performance as a three-dimensional region of fluctuating elevation and/or color within a three-dimensional computer drawing database consisting of one or more multi-level buildings, terrain, flora, and additional static and dynamic obstacles (e.g. automobiles, people, filing cabinets, etc.)."

The Office Action asserts that, in column 4, lines 46-50, column 6, lines 36-60 and column 8, lines 23-35, Rappaport teaches the claim elements of storing an attribute of an optical communication component in a catalog database entry and associating said catalog database entry with a design profile. Applicant respectfully notes that there is nothing in the art now of record to teach or suggest the claim limitations of "associating a catalog database entry with a design profile."

According to Rappaport, a "point-and-click process involves the user selecting the desired hardware component from a computer parts database and then visually

positioning, orienting, and interconnecting. Hardware components within the 3-D environmental database to form complete wireless communication systems." Column 6, lines 40-44. In the Rappaport reference an "interconnected network... is graphically displayed overlaid with a 3-D environmental database." There is nothing, however, in the discussion of Rappaport to teach or suggest "storing an attribute of an optical communication component in a catalog database entry [and] associating said catalog database entry with a design profile."

In addition, it is conceded in the Office Action that Rappaport teaches a wireless network design tool as opposed to the claimed invention. The Office Action proposes that this deficiency is remedied by Rappaport's statement that:

While the invention has been described in terms of a single preferred embodiment, those skilled in the art will recognize that the invention can be practiced with modification within the spirit and scope of the appended claims. For example, this invention may not be limited just to wireless communication systems, but may be used to present any type of electromagnetic characteristics superimposed on any simulated three-dimensional environment. (Emphasis added). Column 10, lines 50-60.

Applicant respectfully disagrees. There is nothing in the statement above that provides any enabling teaching or suggestion of the invention as claimed including limitations of, "storing an attribute of an optical communication component in a catalog database entry [and] associating said catalog database entry with a design profile."

For at least these reasons, the rejection of claim 1 under 35 USC §103(a) over Rappaport should be withdrawn, and claim 1 should be allowed.

Claims 2-9 and 12 each depend, directly or indirectly, from claim 1 and incorporate every limitation thereof. Accordingly, for at least the reasons given above in relation to claim 1, the rejections of claims 2-9 and 12 under 35 USC §103(a) over Rappaport should also be withdrawn.

Claim 27 recites:

A method of modeling a fiber optic communication network comprising: defining a land base map; defining a first plurality of optical network components including a second plurality of optical cable segments; associating each component of said first plurality with a location of said land base; associating each component of said first plurality with at least one other component of said first plurality; calculating signal loss through at least one segment of said second plurality; and displaying said land base map and said signal loss calculation result. (Emphasis added).

In relation to the rejection of claim 27 under 35 USC §103(a) over Rappaport the Office Action admits that Rappaport is directed to a wireless network design tool but relies on the language of column 10, line 53-column 11, line 6 to suggest that Rappaport also teaches " defining a first plurality of optical network components including a second plurality of optical cable segments "

Applicant respectfully submits that the language of column 10 and 11, whether taken alone or in combination with the references now of record, does not provide any

enabling disclosure of the claimed invention. The portion of Rappaport relied on by the Office Action states:

For example, this invention may not be limited just to wireless communication systems, but may be used to present any type of electromagnetic characteristics superimposed on any simulated three-dimensional environment. For example, the invention would find application in the next generation field of micromachines and nanomachines or micro-electrical-mechanical machines (MEMS). These machines are extremely small yet highly sophisticated functional elements that allow them to perform complicated tasks in hard-to-access locations, such as inside the human body, in plumbing, in jet engines, etc. It will be necessary to both wirelessly communicate with these machines as well as wirelessly provide power for these machines, such as in the form of RF pulses, infrared (IR) light or any other form of electromagnetic medium. The present invention would therefore facilitate the modeling and presentation of this or any other wireless electromagnetic system. (Emphasis added). Column 10, line 57-column 11, line 6.

Thus, there is nothing in this Rappaport to teach or suggest "[a] method of modeling a fiber optic communication network comprising...defining...a second plurality of optical cable segments [and] calculating signal loss through at least one segment of said second plurality, (emphasis added)."

In light of the foregoing, there is nothing to suggest that one of ordinary skill in the art would have been able, at the time that the invention was made, to combine "his own knowledge" with the discussion of Rappaport to arrive at the claimed invention. Therefore, the cited art does not teach or suggest every limitation of the subject claim, and the rejection of claim 27 under 35 USC § 103(a) over Rappaport should be withdrawn.

Claims 10-11 and 21-26 stand rejected under 35 USC §103(a) over support in further view of United States patent number 5,761,432 to Bergholm et al. (*hereinafter* Bergholm).

The Bergholm reference relates to "tying inventory management, order management and design management altogether in connection with an attribute design database system." In relation to the rejection of claims 10 and 11 the Office Action concedes that Rappaport does not explicitly teach identification of network components with an owner or with a communication circuit. The proposed combination of Rappaport with Bergholm purports to remedy this deficiency.

Claims 10 and 11 each depend directly from claim 1, and therefore include every claim 1 limitation. As discussed above, Rappaport does not teach or suggest every limitation of claim 1. The Bergholm reference, whether taken alone or in combination with Rappaport fails to remedy this deficiency. Thus, even accepting *arguendo* that the combination of Rappaport and Bergholm is improperly made, Rappaport and Bergholm taken alone or in combination do not teach or suggest every limitation of claims 10 and 11. Accordingly, the rejection of claims 10 and 11 under 35 USC §103(a) over Rappaport and Bergholm should be withdrawn.

As to the rejection of claim 21 - 24, Applicant respectfully notes the rejection of claim 21 appears to be based upon limitations not found in claim 21 as presented. Accordingly, the rejection of claim 21 under 35 USC §103 (a) over Rappaport in view of Bergholm should be withdrawn.

Claims 22-24 each depend directly from claim 21 and incorporate every limitation thereof. Accordingly, the rejection of 22-24 under 35 USC §103 (a) over Rappaport in view of Bergholm should be withdrawn for at least those reasons given above in relation to claim 21.

As to the rejection of claims 25 and 26, Applicant respectfully notes the rejection of claim 25 appears to be based upon limitations not found in claim 25 as presented. Accordingly, the rejection of claims 25 and 26, which depends therefrom, under 35 USC §103 (a) over Rappaport in view of Bergholm should be withdrawn.

Claims 13-17 stand rejected under 35 USC §103 (a) over Rappaport in view of Bergholm and in further view of United States patent application number 5,821,937 to Tonelli et al. (*hereinafter* Tonelli).

The Tonelli reference relates to “[a] method for designing networks including auditing a network to discover a present network configuration, creating a network design sheet from the discovered network configuration, placing device icons representing intelligent device objects on the network design sheet, selecting a media type representing an intelligent media object, and connecting the media type to a first one of the device icons.” Abstract.

Even accepting, *arguendo*, the propriety of the proposed combination of references, claim 13 specifically claims “a first computer including a first memory storage device having application software encoded therein; a second computer, operatively connected to said first computer, having a second memory storage device adapted to record first project data; [and] a third computer, operatively connected to said second computer,

having a third memory storage device adapted to record second project data, said first and second project data being substantially instantaneously identical.”

The Office Action concedes that “Rappaport does not teach a system of computers including a first computer storing application software and second and third computers sharing mirrored project data.” The combination of Rappaport with Bergholm is proposed in the Office Action in an effort to remedy this deficiency. This proposed combination, even if it were proper and even including the disclosure of Tonelli, does not teach every limitation of the subject.

As cited by the Office Action, in column 14, lines 57-60 Bergholm states that “each workgroup server contains the butterfly and log file to support the workstation at each site. Workgroup servers may be any of the following: HP 9000/800 series; HP 9000/800 835 series; and/or HP 9000/7 12/80i.” This in no way teaches or suggests the claim 13 limitations of “having a third memory storage device adapted to record second project data, said first and second project data being substantially instantaneously identical.” Accordingly, the rejection of claim 13 under 35 USC §103(a), and those of claims 14-17 which ultimately depend from claim 13, should be withdrawn.

Claims 18 and 20 stand rejected under 35 USC §103 (a) over Rappaport in view of Bergholm and in further view Tonelli.

Applicant respectfully asserts that the proposed combination is not properly made, however. To combine references under 35 U.S.C. § 103(a), there must be a teaching or suggestion found in the prior art to make the combination.

The Rappaport reference, is related to "[a] method for displaying the results of a predicted wireless communication system performance as a three-dimensional region of fluctuating elevation and/or color within a three-dimensional computer drawing database consisting of one or more multi-level buildings, terrain, flora, and additional static and dynamic obstacles (e.g. automobiles, people, filing cabinets, etc.)."

In contrast, the Bergholm reference relates to:

An attribute design database system provides for inventory management, order process management and design management. The system operates in a telecommunications management network provisioning environment. It provides a physical network management system that includes various telecommunications network management tools. Graphical user interface facilitates the user's navigation of the database system to enable the same person to have access to and the ability to modify information in regards to inventory management, design management and order management for the network. Abstract.

Accordingly, the Bergholm reference describes a system completely different from that of the Rappaport reference. There is nothing in the prior art of record to support the proposed combination of Rappaport with Bergholm under 35 U.S.C. § 103(a). Therefore, the proposed combination of Rappaport with Bergholm is believed to be improperly made. Accordingly, withdrawal of the pending rejections of claims 18 and 20 under 35 USC §103(a) over Rappaport in view of Bergholm and Tonelli should be withdrawn.

Claim 19 also stands rejected under 35 USC §103(a) over Rappaport in view of Bergholm and Tonelli. In relation to claim 19, the Office Action acknowledges that the

references of record do not teach or suggest “an optical cable having a buffer with first and second optical fibers, said optical fibers having different nominal characteristics.” The Office Action relies on the arguments presented in relation to claim 14 in an attempt to overcome this deficiency. However, those arguments are believed to have been overcome hereinabove.

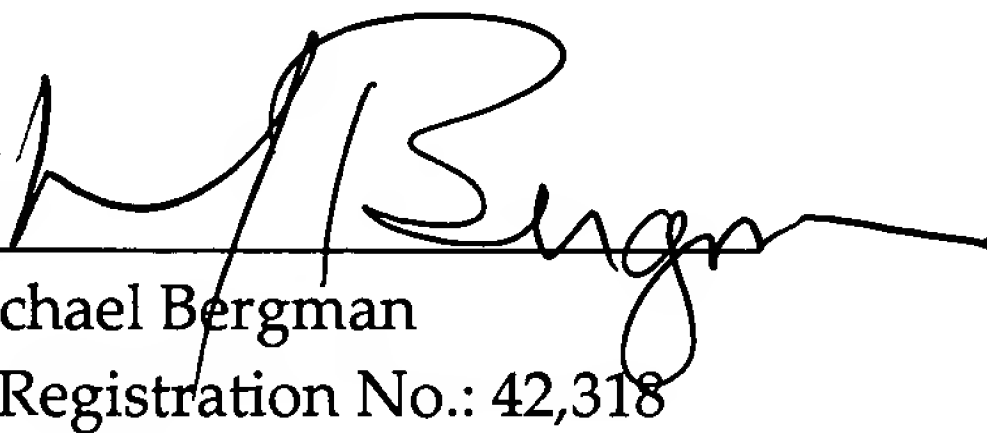
Applicant believes that the unique combination of limitations presented in claim 19 is novel, and respectfully requests that the Examiner withdraw the pending rejection unless a further reference is available to properly teach or suggest every claim limitation.

New claims 28 – 30 have been added to more clearly define the invention. The references now of record, whether taken alone or in combination do not teach or suggest a network planning system including “design profile portion adapted to receive data defining a plurality of design rules related to logical design of a network for a particular project.” Accordingly, claims 28 – 30 are believed to be in immediate condition for allowance.

In light of the foregoing, each of the presently pending claims is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to allow each of the now-pending claims and pass this application to issue.

Respectfully submitted,

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